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LIME REPORT 1932-1935



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LIME REPORT—1932-1935

INTRODUCTION

The Pennsylvania Lime Law, Act of June 1, 1915, as amended May 22, 1933, requires annual registration of all liming materials sold for agricultural purposes. The following information is required to be shown on sacks or attached cards:

- (a) The name of the manufacturer or importer, and the address of his principal office.
- (b) The name of the place where manufactured.
- (c) The brand or trade name of the material.
- (d) The name of the form of the material.
- (e) The net weight, when the material is sold in packages.
- (f) The fineness of the material, if in a ground or powdered form, showing the percentage passing the twenty mesh sieve, the sixty mesh sieve, and the one hundred mesh sieve.
- (g) The minimum per cent contained of, in terms of, oxides of calcium and oxides of magnesium.
- (h) With respect to all burned forms of liming materials, including mixtures of burned and unburned liming materials, statement of the total maximum per cent contained of oxides of calcium and oxides of magnesium, which are combined as carbonates. The information given in the said statement shall be held to be the guaranty of the manufacturer or importer that the goods to which said statement refers are of the kind and quality or composition and fineness so set forth.

The act provides for the collection and analyses of official samples as obtained by Agents throughout the Commonwealth.

Prior to 1933 special samples were analyzed for residents of the State only for a fee of \$1 per sample. However, the Act as now amended requires an analysis fee of \$5 per sample.

Applications for registration are required to be submitted and the registered labeling should correspond with labeling employed on sacks or attached cards.

The registration or license fees are as follows:

New Brands	\$ 5.00
Sales to 1000 tons inclusive.....	5.00
Over 1000 to 5000 tons inclusive.....	10.00
Over 5000 tons	20.00

Since the publication of the last Bulletin, namely for the years 1930 and 1931, residents of the State submitted 148 special samples for analysis with the prescribed fees and the results of these analyses are not included in this report.

During the spring and fall shipping seasons, for the years 1932 to 1935 inclusive, 396 official samples were secured, out of which 375 samples were selected for analysis. At time of sampling the Agents submitted reports showing the information printed on

sacks or attached cards. The 375 samples analyzed represented 100 brands, registered by 71 manufacturers as follows:

CLASSES	BRANDS	SAMPLES
Pulverized Limestone	25	103
Pulverized Oyster Shell	1	1
Artificial Carbonate of Lime	1	2
Lime	23	46
Hydrated Lime, low magnesia	33	164
Hydrated Lime, high magnesia	16	57
Miscellaneous	1	2
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Total	100	375

PENNSYLVANIA LIME LAW

Act of June 1, 1915, No. 306, P. L. 678, as amended May 22, 1933—No. 157, P. L. 894

AN ACT

To regulate the sale for agricultural purpose of crushed limestone, lime, gypsum, and related products; defining said products; and prescribing penalties for the violation of this act.

Section 1. Be it enacted, &c., That all liming materials for agricultural purposes, sold, offered, or exposed for sale within this Commonwealth, shall have attached to it or be accompanied in the manner provided in section three thereof, by a plainly printed statement, giving the following information:

Liming materials sold for agricultural purposes to have statement attached.

(a) The name of the manufacturer or importer, and the address of his principal office.

Information required.

(b) The name of the place where manufactured.

(c) The brand or trade name of the material.

(d) The name of the form of the material.

(e) The net weight, when the material is sold in packages.

(f) The fineness of the material, if in a ground or powdered form, showing the percentage passing the twenty mesh sieve, the sixty mesh sieve, and the one hundred mesh sieve.

(g) The minimum per cent contained of, in terms of, oxides of calcium and oxides of magnesium.

(h) With respect to all burned forms of liming materials, including mixtures of burned and unburned liming materials, statement of the total maximum per cent contained of oxides of calcium and oxides of magnesium, which are combined as carbonates. The information given in the said statement shall be held to be the guaranty of the manufacturer or importer that the goods to which said statement refers are of the kind and quality or composition and fineness so set forth.

Guaranty

Section 2. For the purpose of this act, the expression "liming materials for agricultural purposes" means any substances containing calcium or magnesium, or both for use as soil amendments or in soil treatment, or as ingredients or reagents in the preparation of any fungicide or insecticide.

Liming materials for agricultural purposes

Section 3. The statement required by section one this act shall, in the case of goods sold in package, be plainly printed upon the package, or upon a tag or label fastened thereto, of such quality and in such manner that it shall not be detached in handling, and, in the case of goods sold in bulk the said statement shall be delivered to the purchaser either with the invoice therefor or with the goods.

Labeling of packages

Section 4. Every manufacturer or importer of liming materials for agricultural purposes shall, on or be-

Annual statement of brands

fore the first day of January of each year, or before offering them for sale in this Commonwealth, file annually with the Secretary of Agriculture a statement of the names and number of brands of such materials, having distinct trade-names, that he shall offer for sale during the next ensuing calendar year, or remainder thereof, together with a copy of the statement declaring the composition of these several brands of said materials, as required by section one of this act.

Annual affidavit
of weight of
each brand

License fee

Section 5. In addition to the statement required by section four of this act, every manufacturer or importer of any of the materials covered by section one of this act shall on or before the first day of January of each year, or before offering them for sale within this Commonwealth, file annually with the Secretary of Agriculture an affidavit showing, as nearly as practicable, the weight of each brand of said materials sold by him or if the producer or vendor be a firm or corporation, by its managers, officers, and agents, within the Commonwealth, during the last preceding year; and for each brand so sold he shall pay to the Secretary of Agriculture a license fee, according to the weight sold, as follows: For an amount not exceeding one thousand tons, five dollars; for an amount exceeding one thousand tons, but not exceeding five thousand tons, ten dollars; and for an amount exceeding five thousand tons, twenty dollars; and when said fees shall have been paid, and the statements required by section four of this act have been filed with the Secretary of Agriculture, the party or parties who have made such payment, and otherwise complied with the provisions of this act, shall be entitled to sell within the Commonwealth the goods specified in said statement and covered by said fees during the year, or fraction of a year, immediately following said statement. If the manufacturer or importer shall not have made during the preceding year any sales within the Commonwealth, of the aforesaid material of any brand to be offered for sale during the year for which the fee is to be paid, he shall pay for each such brand a fee of five dollars. All moneys so received shall be immediately paid by the Secretary of Agriculture into the State Treasury, for the use of the Commonwealth.

Violations

Penalty

Section 6. Any person or persons, selling, offering, or exposing for sale, any of the materials covered by section one or brand of the same, unless accompanied by the statement required by section one of this act, or, when so accompanied, if the said statements shall be false in any particular, or without having complied with all the foregoing provisions of this act, shall be guilty of a misdemeanor; and on conviction shall be sentenced to pay a fine of not less than ten nor more than fifty dollars for the first offense, and not less than

one hundred dollars for each subsequent offense. It shall be the duty of the Secretary of Agriculture to enforce the provisions of this act; and all penalties, costs, and fines recovered shall be paid to him or his duly authorized agent, and by him shall be immediately paid into the State Treasury, for the use of the Commonwealth.

The Secretary of Agriculture is hereby authorized to revoke any license where it shall be properly ascertained that the license has wilfully given false information in its statements relative to the kind, quality, composition or fineness of the liming materials sold, or offered for sale, under the provisions of this act.

Section 7. The Secretary of Agriculture is hereby empowered to collect samples of the materials covered by section one of this act, either in person or by his duly qualified agent or representative, to have them analyzed, and shall publish the results for the information of the public; and for this purpose the said Secretary of Agriculture, such assistants, agents, experts, chemists, detectives, and counsel as he shall duly authorize, shall have full access, ingress, and egress to and from all places of business, quarries, kilns, factories, barns, buildings, carriages, cars, and vessels used in the manufacture, storage, transportation, or sale of any of the said materials. They shall also have power to open any package or vessel containing or supposed to contain any of the said materials, and to take therefrom samples for analysis, upon tendering the value of said samples. Any manufacturer or producer of any of the materials covered by section one of this act, located in the Commonwealth, shall be entitled to have a single sample of any distinct brand, for the sale of which he has paid the fee required by section five of this act, analyzed by the Department of Agriculture, under such regulations as the Secretary of Agriculture may prescribe with respect to the points of composition specified in said section one, upon sending sample properly sealed and carriage prepaid, together with a fee of five dollars for each such analysis; but not more than two brands shall be analyzed, under the privilege conferred by this proviso, for one manufacturer or producer in a single year. None of the provisions of this act shall apply to sales of limestone, or limestone products or marl, when such sales are made at the quarry or pit in bulk, and delivered to the wagons or trucks of the users, who are presumed to be acquainted with the qualities of the local products, if such deliveries do not exceed one hundred tons in any one year.

Enforcement

Revocation of license

Collection of samples

Right of access, etc.

Taking of samples for analysis

Right of producer to have sample analyzed

Fee

Limited sales at pit or quarry excepted

Approved—The 22d day of May, A. D. 1933.

GIFFORD PINCHOT.

BRANDS REGISTERED AND TONNAGE SALES

The following tabulation shows the lime consumption, which figures are based on each succeeding year's applications for registration:

	1931	1932	1933	1934
Limestone	106785	72473	58960	77548
Artificial Carbonate	14318	10374	500	900
Marl	904	148	294	847
Oyster Shell	1206	1565	1691	2226
Hydrated	81313	78040	62097	58127
Burned	19950	15136	22931	24773
Gypsum	145	332	174	83
Miscellaneous	6435	6083	9846	6681
Total tonnage	231056	184151	156493	171185

Licenses were issued for the year 1932 to 90 manufacturers covering 182 brands; 1933, 90 manufacturers, 177 brands; 1934, 105 manufacturers, 198 brands; 1935, 104 manufacturers, 203 brands.

The results of chemical analyses of the 375 official samples showed that 53 or 14.1% were deficient in calcium oxide and 43 or 11.5% deficient in magnesium oxide to the extent of .50% or more below their respective guarantees.

Many of the deficiencies were not of a serious nature for the reason that the sum of the calcium oxide and magnesium oxide was found to be in excess of the total oxides guaranteed. In other words the total soil neutralization effectiveness would not vary materially in comparison to the amount of oxides claimed or guaranteed. It is realized that in limestone deposits it is rather difficult to fix guarantees which would remain constant under all conditions.

The following Table I shows the average analyses, prices and deficiencies, together with the number of samples, brands and manufacturers of each class.

TABLE I—AVERAGE ANALYSES, PRICES AND DEFICIENCIES

Classes of Lime Products	Samples	Brands	Mfrs.	Average Calcium Oxide %	Average Magnesium Oxide %	Price Per Ton \$	Deficiencies	
							Calcium Oxide	Magnesium Oxide
Pulverized Limestone	103	25	24	49.64	3.48	5.81	14	4
Pulverized Oyster Shell	1	1	1	46.49	0.39	9.50	..	..
Artificial Carbonate of Lime	2	1	1	42.99	8.03	9.25	2	..
Lime	46	23	22	79.92	2.26	4.85	10	10
Hydrated Lime (Low Magnesia) ..	164	33	29	68.88	1.60	11.19	18	22
Hydrated Lime (High Magnesia) ..	57	16	14	49.12	30.75	10.74	9	7
Miscellaneous	2	1	1	41.45	27.53	8.95	..	..

EXPLANATION OF TABLES OF ANALYSES

In order to conserve space columns are provided in Tables II and III to take care of guarantees which were required under the Act prior to its amendment under date of May 22, 1933, as well as those guarantees now in force. The Law now in effect requires only guarantees for calcium oxide, magnesium oxide and the percentage amount of material passing the #20, #60 and #100 mesh sieves; and in the case of burned and mixtures of burned and unburned lime, the amount of oxides combined as carbonates. The Law prior to its amendment required, in the case of limestones and artificial carbonates, guarantees for calcium oxide, magnesium oxide and the respective carbonates, together with the sieve mesh through which the coarsest particles would pass, and this likewise applies to Table III covering Lime and Hydrated Lime where different guarantees are now required.

The letter "F" indicates the word "Found" or the figures obtained upon analysis, while the letter "G" denotes the guarantee of the manufacturer.

The samples which were found to be deficient in calcium and magnesium oxide to the extent of .50% or more are indicated by an asterisk (*).

Samples numbers C-2113 to C-2302 inclusive, represent those obtained during the years 1932 and 1933, while samples numbers C-2303 to C-2508 inclusive represent those obtained during the years 1934 and 1935 or after the Act had been amended.

In estimating the composition of the several classes of Lime Products, it is necessary to employ certain factors, which are derived from the chemical formulas representing them. Carbonate of Lime is represented by the formula CaCO_3 , Carbonate of Magnesia by MgCO_3 , Gypsum or Calcium Sulphate by CaSO_4 , Hydrated Lime by $\text{Ca}(\text{OH})_2$, and Magnesium Hydrate by $\text{Mg}(\text{OH})_2$. To estimate the amounts of these forms or combinations the percentages of Calcium Oxide and Magnesium Oxide secured are multiplied by their respective factors. In order that these factors may be at hand for reference, they are included herewith as follows:

Given	Required	Factor
Calcium oxide,	Calcium hydrate,	1.321
Calcium oxide,	Calcium carbonate,	1.7839
Calcium oxide,	Calcium sulphate,	2.4265
Calcium hydrate,	Calcium oxide, .....	.7570
Calcium carbonate,	Calcium oxide, .....	.5606
Calcium sulphate,	Calcium oxide, .....	.4121
Magnesium oxide,	Magnesium hydrate,	1.4468
Magnesium oxide,	Magnesium carbonate,	2.0913
Magnesium hydrate,	Magnesium oxide, .....	.6912
Magnesium carbonate,	Magnesium oxide, .....	.4782
Calcium oxide,	Sulphur trioxide,	1.4265
Carbon dioxide,	Calcium carbonate,	2.2757
Carbon dioxide,	Magnesium carbonate,	1.9159
Calcium carbonate,	Carbon dioxide, .....	.4394
Sulphur trioxide,	Calcium sulphate (Gypsum),	2.1504

TABLE II--PULVERIZED LIMESTONE, PULVERIZED OYSTER SHELL AND ARTIFICIAL CARBONATE OF LIME

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	CALCIUM CARBONATE	MAGNESIUM OXIDE	MAGNESIUM CARBONATE	Coarsest Particle Pass Sieve Mesh No.	FINENESS		
							#20	#60	#100
		%	%	%	%		%	%	%
PULVERIZED LIMESTONE									
AMERICAN LIME & STONE CO., Bellefonte, Pa.									
Alfalfa Pulverized Limestone	F	54.21	96.72	0.68	1.42	30	----	----	----
(C-2121)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	54.54	97.29	0.64	1.34	20	----	----	----
(C-2133)	G	53.79	96.00	0.48	1.00	30	----	----	----
Alfalfa Pulverized Limestone	F	54.60	97.40	0.68	1.17	20	----	----	----
(C-2156)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	54.67	97.53	0.53	1.11	50	----	----	----
(C-2192)	G	53.79	96.00	0.48	1.00	30	----	----	----
Alfalfa Pulverized Limestone	F	53.66	96.72	0.64	1.34	30	----	----	----
(C-2194)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	53.77	95.92	0.59	1.23	30	----	----	----
(C-2202)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	*52.89	94.35	0.64	1.34	40	----	----	----
(C-2231)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	54.43	97.10	0.32	0.68	50	----	----	----
(C-2246)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	54.65	97.49	0.52	1.09	40	----	----	----
(C-2281)	G	53.79	96.00	0.48	1.00	20	----	----	----
Alfalfa Pulverized Limestone	F	53.86	-----	0.76	----	---	100.0	99.2	96.8
(C-2334)	G	53.79	-----	0.48	----	---	100.0	-----	70.0
Alfalfa Pulverized Limestone	F	55.06	-----	0.62	----	---	100.0	94.8	88.0
(C-2343)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	54.26	-----	0.59	----	---	100.0	98.0	94.8
(C-2380)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	53.55	-----	0.80	----	---	100.0	98.8	95.6
(C-2407)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	54.11	-----	0.50	----	---	100.0	95.2	84.4
(C-2418)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	53.99	-----	0.48	----	---	100.0	100.0	100.0
(C-2421)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	54.92	-----	1.11	----	---	100.0	96.4	90.4
(C-2475)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
Alfalfa Pulverized Limestone	F	54.53	-----	0.49	----	---	100.0	94.4	89.6
(C-2481)	G	53.79	-----	0.48	----	---	100.0	90.0	70.0
BLUE STONE LIME CO., Kent, Pa.									
Raw Ground Lime (C-2378)	F	50.46	-----	0.75	----	---	63.6	41.6	31.6
	G	50.70	-----	1.00	----	---	-----	-----	-----
CHEMICAL LIME CO., Bellefonte, Pa.									
Agricultural Ground	F	54.82	97.79	*0.50	1.05	50	----	----	----
Limestone (C-2129)	G	52.52	94.12	1.54	3.00	---	----	----	----
Agricultural Ground	F	55.45	96.92	*0.49	1.08	50	----	----	----
Limestone (C-2271)	G	52.52	94.12	1.54	3.00	40	----	----	----
Agricultural Ground	F	55.04	-----	0.51	----	---	100.0	99.2	92.8
Limestone (C-2364)	G	53.50	-----	0.80	----	---	100.0	75.0	50.0
Agricultural Ground	F	54.94	-----	0.56	----	---	100.0	100.0	97.6
Limestone (C-2400)	G	53.50	-----	0.80	----	---	100.0	75.0	50.0
Agricultural Ground	F	54.00	-----	0.81	----	---	100.0	100.0	78.4
Limestone (C-2441)	G	53.50	-----	0.80	----	---	100.0	75.0	50.0
COOPERATIVE G.L.F. MILLS, INC., Buffalo, N.Y.									
G.L.F. Quality Pulverized	F	52.86	94.30	0.84	1.76	40	----	----	----
Limestone (C-2273)	G	51.00	93.00	0.75	1.50	20	----	----	----
G.L.F. Quality Pulverized	F	54.88	-----	1.21	----	---	100.0	75.2	63.2
Limestone (C-2340)	G	54.50	-----	1.00	----	---	----	----	----
G.L.F. Quality Pulverized	F	45.16	-----	4.50	----	---	99.6	94.4	84.0
Limestone (C-2326)	G	34.00	-----	1.00	----	---	----	80.0	80.0
G.L.F. Quality Pulverized	F	44.57	-----	4.46	----	---	100.0	98.0	93.8
Limestone (C-2497)	G	34.00	-----	1.00	----	---	----	80.0	80.0
FARBER-WHITE LIMESTONE CO., McAfee, N.J.									
Snowwhite Brand Limestone	F	48.89	87.21	4.37	9.14	20	----	----	----
(C-2284)	G	47.00	84.00	3.00	7.00	20	----	----	----
Snowwhite Brand Limestone	F	*42.56	-----	4.16	----	---	99.2	81.2	70.0
(C-2327)	G	47.00	-----	3.00	----	---	100.0	70.0	60.0
*Deficient									

*Deficient

TABLE II--PULVERIZED LIMESTONE, PULVERIZED OYSTER SHELL AND ARTIFICIAL CARBONATE OF LIME

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	CALCIUM CARBONATE	MAGNESIUM OXIDE	MAGNESIUM CARBONATE	Coarsest Particles Pass Sieve Mesh No.	FINENESS		
							#20	#60	#100
							%	%	%
		%	%	%	%	NO.	%	%	%
FRANKLIN LIME PRODUCTS									
CORPORATION, Ogdensburg, N.J.									
Franklin Brand Agricultural									
Limestone (C-2149)	F	*44.69	79.72	9.28	19.41	20	-----	-----	-----
	G	52.00	93.00	2.00	4.60	50	-----	-----	-----
Franklin Brand Agricultural									
Limestone (C-2159)	F	*43.79	78.12	10.14	21.21	50	-----	-----	-----
	G	52.00	93.00	2.00	4.60	50	-----	-----	-----
GROVE CITY LIMESTONE CO.,									
Osborne, Pa.									
Four Leaf Clover Brand Lime									
(C-2422)	F	61.84	-----	0.40	-----	---	99.2	66.0	53.2
	G	51.67	-----	0.40	-----	---	100.0	64.0	54.0
LIMESTONE PRODUCTS									
CORPORATION OF AMERICA,									
Neston, N. J.									
Lime Crest Pulverized Limestone									
(C-2126)	F	*44.24	78.92	7.28	15.22	20	-----	-----	-----
	G	50.00	90.00	1.50	3.00	50	-----	-----	-----
Lime Crest Pulverized Limestone									
(C-2155)	F	43.57	77.72	5.65	11.84	30	-----	-----	-----
	G	34.00	60.00	1.00	2.00	50	-----	-----	-----
Lime Crest Pulverized Limestone									
(C-2251)	F	40.94	73.03	10.82	22.63	40	-----	-----	-----
	G	34.00	60.00	1.00	2.00	50	-----	-----	-----
Lime Crest Pulverized Limestone									
(C-2322)	F	46.61	-----	5.24	-----	---	99.2	94.4	84.0
	G	34.00	-----	1.00	-----	---	-----	-----	80.0
Lime Crest Pulverized Limestone									
(C-2382)	F	44.13	-----	4.76	-----	---	99.6	94.8	85.2
	G	34.00	-----	1.00	-----	---	99.0	95.0	90.0
Lime Crest Pulverized Limestone									
(C-2500)	F	49.18	-----	2.95	-----	---	99.6	97.8	93.2
	G	34.00	-----	1.00	-----	---	99.0	95.0	90.0
MICHIGAN LIMESTONE &									
CHEMICAL CO., Buffalo, N.Y.									
Calcite Brand Michigan Lime-									
stone (C-2127)	F	*53.93	96.21	1.12	2.34	20	-----	-----	-----
	G	54.50	97.00	1.00	2.00	10	-----	-----	-----
Calcite Brand Michigan Lime-									
stone (2195)	F	54.33	96.92	1.01	2.11	20	-----	-----	-----
	G	54.50	97.00	1.00	2.00	10	-----	-----	-----
Calcite Brand Michigan Lime-									
stone (C-2234)	F	54.32	96.90	1.14	2.38	20	-----	-----	-----
	G	54.50	97.00	1.00	2.00	10	-----	-----	-----
Calcite Brand Michigan Lime-									
stone (C-2245)	F	54.23	96.74	0.98	2.05	30	-----	-----	-----
	G	54.50	97.00	1.00	2.00	10	-----	-----	-----
Calcite Brand Michigan Lime-									
stone (C-2237)	F	54.95	-----	1.00	-----	---	100.0	71.2	62.4
	G	54.50	-----	1.00	-----	---	96.6	-----	66.6
Calcite Brand Michigan Lime-									
stone (C-2361)	F	54.99	-----	1.00	-----	---	100.0	64.0	62.4
	G	54.50	-----	1.00	-----	---	96.6	-----	65.6
Calcite Brand Michigan Lime-									
stone (C-2379)	F	54.38	-----	1.12	-----	---	100.0	66.4	56.0
	G	54.50	-----	1.00	-----	---	96.6	-----	66.6
Calcite Brand Michigan Lime-									
stone (C-2416)	F	64.84	-----	1.00	-----	---	100.0	68.4	56.6
	G	54.60	-----	1.00	-----	---	96.6	72.0	65.6
Calcite Brand Michigan Lime-									
stone (C-2478)	F	54.87	-----	1.02	-----	---	100.0	69.2	58.4
	G	54.50	-----	1.00	-----	---	96.6	85.0	66.6
H. E. MILLARD, Annville, Pa.									
Air Floated Pulverized Lime-									
stone (C-2239)	F	54.43	97.10	0.41	0.86	100	-----	-----	-----
	G	54.50	97.00	0.42	1.00	100	-----	-----	-----
Air Floated Pulverized Lime-									
stone (C-2319)	F	53.98	-----	0.40	-----	---	100.0	100.0	99.2
	G	54.40	-----	0.48	-----	---	-----	100.0	99.0
Air Floated Pulverized Lime-									
stone (C-2403)	F	*52.71	-----	0.91	-----	---	100.0	99.2	98.8
	G	54.40	-----	0.48	-----	---	-----	100.0	99.0
Air Floated Pulverized Lime-									
stone (C-2499)	F	*52.00	-----	1.31	-----	---	100.0	100.0	98.8
	G	54.40	-----	0.48	-----	---	-----	100.0	99.0
MOHAWK LIMESTONE PRODUCTS									
CO., Mohawk, N. Y.									
Mohawk Pulverized Limestone									
(C-2233)	F	48.83	87.11	2.00	4.18	30	-----	-----	-----
	G	47.00	84.00	2.00	4.20	80	-----	-----	-----
Mohawk Pulverized Limestone									
(C-2283)	F	48.22	86.02	1.96	4.10	40	-----	-----	-----
	C	47.00	84.00	2.00	4.20	80	-----	-----	-----
NATIONAL MORTAR & SUPPLY									
CO., Pittsburgh, Pa.									
Danner Pulverized Limestone									
(C-2170)	F	31.23	55.71	22.42	46.89	50	-----	-----	-----
	G	30.00	54.00	22.00	45.00	30	-----	-----	-----
Danner Pulverized Limestone									
(C-2372)	F	31.64	-----	22.02	-----	---	100.0	100.0	99.2
	G	30.00	-----	22.00	-----	---	-----	-----	30.0
NEW CASTLE LIME & STONE									
CO., New Castle, Pa.									
New Castle Agricultural Lime-									
stone (C-2144)	F	51.18	91.30	0.52	1.09	20	-----	-----	-----
	G	46.75	-----	0.70	-----	10	-----	-----	-----
New Castle Agricultural Lime-									
stone (C-2178)	F	50.65	90.35	0.53	1.11	20	-----	-----	-----
*Deficient	G-	46.75	91.00	0.70	-----	10	-----	-----	-----

TABLE II--PULVERIZED LIMESTONE, PULVERIZED OYSTER SHELL AND ARTIFICIAL CARBONATE OF LIME

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	CALCIUM CARBONATE	MAGNESIUM OXIDE	MAGNESIUM CARBONATE	Coarsest Particles Pass Sieve Mesh No.	FINENESS		
							#20	#60	#100
		%	%	%	%	No.	%	%	%
New Castle Agricultural Lime- stone (C-2188)	F	51.00	90.98	0.62	1.30	20	----	----	----
	G	46.75	91.00	0.70	----	10	----	----	----
New Castle Agricultural Lime- stone (C-2370)	F	*50.68	-----	0.54	----	---	99.2	67.6	60.8
	G	51.52	-----	0.75	----	---	100.0	-----	75.0
New Castle Agricultural Lime- stone (C-2460)	F	52.02	-----	0.40	----	---	100.0	92.0	82.0
	G	-----	-----	----	----	---	100.0	-----	50.0
New Castle Agricultural Lime- stone (C-2461)	F	51.84	-----	0.44	----	---	98.8	73.2	64.0
	G	-----	-----	----	----	---	100.0	-----	50.0
New Castle Agricultural Lime- stone (C-2462)	F	50.66	-----	0.51	----	---	100.0	79.2	71.2
	G	-----	-----	----	----	---	100.0	-----	50.0
New Castle Agricultural Lime- stone (C-2465)	F	51.66	-----	0.24	----	---	100.0	74.4	66.0
	G	-----	-----	----	----	---	100.0	-----	50.0
NEW ENTERPRISE STONE & LIME CO., New Enterprise, Pa.									
Port Bedford Pulverized Lime- stone (C-2456)	F	50.04	-----	2.07	----	---	100.0	70.4	56.8
	G	50.00	-----	2.00	----	---	-----	-----	70.0
THE OHIO HYDRATE & SUPPLY CO., Woodville, Ohio									
OHSO Pulverized Raw Lime (C-2117)	F	31.64	56.44	21.10	44.13	50	-----	-----	-----
	G	31.50	56.70	20.00	42.30	60	-----	-----	-----
OHSO Pulverized Raw Lims (C-2141)	F	31.58	56.34	21.02	44.08	100	-----	-----	-----
	G	31.50	56.70	20.00	42.30	60	-----	-----	-----
OHSO Pulverized Raw Lime (C-2188)	F	31.63	56.42	21.41	44.77	50	-----	-----	-----
	G	31.50	56.70	20.00	43.30	60	-----	-----	-----
OHSO Pulverized Raw Lime (C-2215)	F	31.97	57.03	20.24	42.33	80	-----	-----	-----
	G	31.50	56.70	20.00	42.30	60	-----	-----	-----
OHSO Pulverized Raw Lime (C-2330)	F	31.63	-----	21.96	----	---	100.0	100.0	98.0
	G	31.50	-----	20.00	----	---	-----	-----	-----
OHSO Pulverized Raw Lime (C-2412)	F	31.43	-----	20.16	----	---	100.0	100.0	98.8
	G	31.50	-----	20.00	----	---	100.0	98.0	90.0
PURE CALCIUM PRODUCTS CO., Pittsburgh, Pa.									
Superior Farm and Garden Lime (C-2160)	F	*54.49	97.20	0.70	1.46	100	-----	-----	-----
	G	55.00	98.20	0.15	0.30	100	-----	-----	-----
SMICKSBURG COOPERATIVE LIME ASSOCIATION, Smicksburg, Pa.									
Raw Lime (C-2375)	F	41.95	-----	3.02	----	---	95.2	47.6	38.0
	G	38.17	-----	3.39	----	---	98.8	54.0	46.0
Raw Lime (C-2396)	F	41.01	-----	3.30	----	---	92.8	46.4	40.0
	G	38.17	-----	3.39	----	---	98.8	54.0	46.0
Raw Lime (C-2424)	F	40.75	-----	3.40	----	---	92.0	46.0	38.8
	G	38.17	-----	3.39	----	---	98.8	54.0	46.0
THE SOLVAY PROCESS CO., Syracuse, N. Y.									
Solvay Pulverized Limestone (C-2128)	F	48.94	87.30	2.30	4.81	10	-----	-----	-----
	G	46.50 to 53.20	83-95	1.50 to 2.90	3.14 to 6.10	20	-----	-----	-----
Solvay Pulverized Limestone (C-2197)	F	49.59	88.46	2.44	5.10	20	-----	-----	-----
	G	46.50 to 53.20	83-95	1.50 to 2.90	3.14 to 6.10	20	-----	-----	-----
Solvay Pulverized Limestone (C-2277)	F	49.93	89.07	2.63	5.50	20	-----	-----	-----
	G	50.00	89.30	1.50	3.10	20	-----	-----	-----
TYRONE LIME & STONE CO., Tyrone, Pa.									
Agricultural Ground Limestones (C-2156)	F	48.44	86.41	1.82	3.81	10	-----	-----	-----
	G	48.68	86.84	1.87	3.91	20	-----	-----	-----
Agricultural Ground Limestones (C-2349)	F	48.56	-----	1.75	----	---	97.6	53.2	43.6
	G	48.68	-----	1.87	----	---	100.0	50.0	38.6
Agricultural Ground Limestones (C-2453)	F	48.68	-----	1.88	----	---	94.0	22.8	18.0
	G	48.68	-----	1.87	----	---	100.0	50.0	38.0
Sweet Clover Pulverized Lime- stone (C-2260)	F	*51.23	91.39	0.86	1.80	50	-----	-----	-----
	G	52.91	94.50	0.60	1.26	40	-----	-----	-----
Sweet Clover Pulverized Lime- stone (C-2348)	F	*51.46	-----	1.79	----	---	100.0	100.0	97.2
	G	52.91	-----	0.60	----	---	100.0	80.0	70.0
Sweet Clover Pulverized Lime- stone (C-2359)	F	52.92	-----	0.61	----	---	100.0	99.6	97.6
	G	52.91	-----	0.60	----	---	-----	-----	-----
Sweet Clover Pulverized Lime- Stone (C-2452)	F	52.98	-----	0.60	----	---	100.0	98.4	94.8
	G	52.91	-----	0.60	----	---	100.0	85.0	60.0
*Deficient									

TABLE II--PULVERIZED LIMESTONE, PULVERIZED OYSTER SHELL AND ARTIFICIAL CARBONATE OF LIME

MANUFACTURER AND BRAND NAME	CALCIUM OXIDE	CALCIUM CARBONATE	MAGNESIUM OXIDE	MAGNESIUM CARBONATE	Coarsest Particle Pass Sieve Mesh No.	FINENESS		
						#20	#60	#100
	%	%	%	%	NO.	%	%	%
UNIVERSAL GYPSUM & LIME CO., York, Pa.								
Challenge Brand Pulverized Lime- stone Flour (C-2199) F	49.02	87.45	5.87	12.28	100	----	----	----
G	48.00	85.63	6.00	10.46	100	----	----	----
Challenge Brand Pulverized Lime- stone Flour (C-2362) F	54.88	-----	* 1.30	----	---	100.0	100.0	100.0
G	51.00	-----	3.00	----	---	100.0	100.0	99.0
Challenge Brand Pulverized Lime- stone Flour (C-2369) F	53.76	-----	*2.11	----	---	100.0	100.0	100.0
G	51.00	-----	3.00	----	---	100.0	99.0	99.0
VERMARCO LIME CO., West Rutland, Vt.								
Vermarco Agricultural Limestone Pulverized (C-2325) F	**53.20	-----	1.64	----	---	100.0	78.8	56.0
G	-----	----	----	----	---	100.0	90.0	60.0
WHITEROCK QUARRIES, INC., Bellefonte, Pa.								
Whiterock Pulverized Limestone (C-2123) F	53.09	94.71	0.72	1.51	30	----	----	----
G	51.00	93.00	0.75	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2130) F	52.92	94.40	0.80	1.67	30	----	----	----
G	61.00	93.00	0.76	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2177) F	51.78	92.37	0.83	1.74	30	----	----	----
G	51.00	93.00	0.75	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2223) F	52.87	94.31	0.81	1.69	50	----	----	----
G	51.00	93.00	0.75	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2272) F	52.75	94.10	0.94	1.97	40	----	----	----
G	51.00	93.00	0.75	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2297) F	53.31	95.10	0.75	1.59	20	----	----	----
G	51.00	93.00	0.75	1.50	20	----	----	----
Whiterock Pulverized Limestone (C-2333) F	53.30	-----	0.89	-----	--	100.0	93.6	78.0
G	51.00	-----	0.75	-----	--	-----	-----	80.0
Whiterock Pulverized Limestone (C-2346) F	52.78	-----	0.77	-----	--	100.0	97.2	92.0
G	51.00	-----	0.75	-----	--	-----	-----	80.0
Whiterock Pulverized Limestone (C-2405) F	53.99	-----	0.85	----	--	100.0	92.0	79.0
G	51.00	-----	0.75	----	--	-----	-----	80.0
Whiterock Pulverized Limestone (C-2419) F	55.18	-----	0.55	----	--	100.0	92.0	77.2
G	51.00	-----	0.50	----	--	-----	-----	-----
Whiterock Pulverized Limestone (C-2476) F	53.52	-----	1.22	----	--	100.0	98.8	86.4
G	51.00	-----	0.75	----	--	-----	-----	80.0
WORLOCK STONE CO., INC., Canaanota, N. Y.								
Diamond A Limestone (C-2191) F	*42.64	76.07	7.13	14.91	20	----	----	----
G	46.30	82.63	3.35	7.00	20	----	----	----
Diamond A Limestone (C-2335) F	49.30	-----	3.35	-----	--	100.0	86.0	74.4
G	46.30	-----	3.35	-----	--	95.0	85.0	65.0
Diamond A Limestone (C-2480) F	51.95	-----	1.34	-----	--	99.6	78.8	66.0
G	45.00	-----	1.00	-----	--	-----	-----	-----
YORK VALLEY LIME & STONE CO., York, Pa.								
Limestone Meal (C-2507) F	33.95	-----	16.97	-----	--	85.6	56.0	47.2
G	-----	-----	----	-----	--	-----	-----	-----
Average	49.64	-----	3.48	----	--	----	----	----
PULVERIZED OYSTER SHELL								
THE POTOMAC POULTRY FOOD CO., INC., Baltimore, Md.								
Potolime Oyster Shell Lime (C-2257) F	46.49	82.93	0.39	0.82	10	----	----	----
G	42.00	75.00	0.50	1.00	14	----	----	----
ARTIFICIAL CARBONATE OF LIME								
THE COLUMBIA ALKALI CORPOR- ATION, Barborton, Ohio								
Plant Lime (C-2114) F	*43.90	78.31	7.53	15.75	20	----	----	----
G	44.80	80.00	6.00	12.60	20	----	----	----
Plant Lime (C-2167) F	*42.08	75.07	8.52	17.82	20	----	----	----
G	44.80	80.00	6.00	12.60	20	----	----	----
Average	42.99	----	8.03	----	--	----	----	----
*Deficient								
**Deficient compared with registered guarantee								

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
LIME							
AMERICAN LIME & STONE CO., Bellefonte, Pa.							
Bell Mine Pebble Lime (C-2193)	F	92.01	1.00	-----	-----	-----	
	G	90.00	0.90	-----	-----	-----	
Bell Mine Rotary Kiln Lime (C-2468)	F	*84.47	1.34	2.93	100.0	100.0	
	G	93.00	0.90	2.80	100.0	99.9	
Bell Mine Rotary Kiln Lime (C-2504)	F	*92.22	1.08	2.88	100.0	100.0	
	G	93.00	0.90	2.80	100.0	99.9	
BAKER STONE CO., Bloomsburg, Pa.							
Baker Ground Agricultural Burned Lime (C-2472)	F	*74.41	1.59	14.58	63.6	47.2	
	G	86.18	1.81	-----	76.4	50.0	
GEO. W. SARR, Mapleton Depot, Pa.							
Agricultural Lump Lime (C-2408)	F	87.36	1.41	6.80	-----	-----	
	G	-----	-----	-----	-----	-----	
S. T. BODINE, Montgomery, Pa.							
Lump Lime (C-2488)	F	85.93	1.46	11.94	-----	-----	
	G	70.00	1.30	-----	-----	-----	
CAMPBELL LIME CO., INC., Tyrone, Pa.							
Burned Lime (C-2454)	F	89.50	1.27	5.96	-----	-----	
	G	-----	-----	-----	-----	-----	
P. F. CLEMENS, Milton, Pa.							
Burnt Lump Lime (C-2386)	F	85.62	1.05	3.84	-----	-----	
	G	-----	-----	-----	-----	-----	
WALTER EISWERT, Jersey Shore, Pa.							
Lump Lime (C-2314)	F	85.67	4.08	3.78	-----	-----	
	O	-----	-----	-----	-----	-----	
Lump Lime (C-2438)	F	84.87	4.06	2.64	-----	-----	
	O	83.67	3.06	3.78	-----	-----	
Lump Lime (C-2492)	F	91.06	*1.48	1.06	-----	-----	
	G	82.00	3.00	3.00	-----	-----	
FRIEDLINE & BRANT, Que Creek, Pa.							
Burned and Ground Agricultural Lime (C-2205)	F	*41.80	8.63	-----	-----	-----	
	G	-----	-----	-----	-----	-----	
KENT LIME COMPANY, Kent, Pa.							
Grey Burnt Lime (C-2249)	F	50.34	0.71	-----	-----	-----	
	G	48.13	0.44	-----	-----	-----	
Grey Burnt Lime (C-2297)	F	52.00	0.54	-----	-----	-----	
	G	48.12	0.44	-----	-----	-----	
HENRY KILGUS, Muncy, Pa.							
Muncy Lump Lime (C-2309)	F	89.20	1.04	11.51	-----	-----	
	G	75.25	1.25	-----	-----	-----	
Muncy Lump Lime (C-2437)	F	58.30	1.06	6.37	-----	-----	
	G	75.25	1.26	11.51	-----	-----	
Muncy Lump Lime (C-2485)	F	84.80	1.41	2.86	-----	-----	
	G	75.26	1.06	-----	-----	-----	
LYDA LIME CO., Slacklick, Pa.							
Lyda Burnt Lime (C-2397)	F	*35.58	*5.87	26.67	68.0	42.4	
	G	47.08	6.46	27.49	72.8	47.6	
Lyda Burnt Lime (C-2448)	F	*33.80	*5.63	22.48	41.2	6.4	
	G	47.08	6.46	27.49	72.8	47.6	
W. E. McCONNELL, Muncy, Pa.							
Lump Lime (C-2310)	F	91.48	*1.44	4.64	-----	-----	
	G	-----	-----	-----	-----	-----	
Lump Lime (C-2438)	F	88.46	3.11	9.21	-----	-----	
	G	80.00	3.00	-----	-----	-----	
Lump Lime (C-2489)	F	*75.25	*1.96	3.73	-----	-----	
	G	80.00	3.00	5.00	-----	-----	
NEW ENTERPRISE STONE & LIME CO., New Enterprise, Pa.							
Agricultural Lime (C-2455)	F	88.26	6.48	2.22	-----	-----	
	G	82.50	6.38	-----	-----	-----	
Agricultural Lime (C-2458)	F	90.00	3.52	5.36	-----	-----	
	G	-----	-----	-----	-----	-----	
L. W. OVERLY, Mt. Pleasant, Pa.							
Agricultural Lime (C-2294)	F	65.41	1.54	-----	-----	-----	
	G	-----	-----	-----	-----	-----	
PENN LOER LIME CO., Lewisburg, Pa.							
Burnt Lump Lime (C-2386)	F	86.46	0.96	9.78	-----	-----	
	G	-----	-----	-----	-----	-----	
PINE CREEK LIME & STONE CO., Jersey Shore, Pa.							
Lump Lime (C-2313)	F	89.09	1.07	12.15	-----	-----	
	G	-----	-----	-----	-----	-----	
Lump Lime (C-2434)	F	*81.74	2.10	22.17	-----	-----	
	G	89.00	1.07	12.16	-----	-----	
Lump Lime (C-2490)	F	78.79	*3.22	18.01	-----	-----	
	G	78.94	3.94	-----	-----	-----	
C. WILBERT REEDER, Muncy, Pa.							
Chippewa Lump Lime (C-2389)	F	85.03	1.26	2.12	-----	-----	
	G	68.00	1.00	3.00	-----	-----	
Chippewa Lump Lime (C-2440)	F	83.31	0.82	12.10	-----	-----	
	G	68.00	1.00	3.00	-----	-----	
Chippewa Lump Lime (C-2486)	F	78.95	1.49	3.05	-----	-----	
	G	68.00	1.00	3.00	-----	-----	
SAM TATE, Salona, Pa.							
Lump Lime (C-2365)	F	85.00	2.99	1.37	-----	-----	
	G	-----	-----	-----	-----	-----	
Lump Lime (C-2493)	F	89.08	3.53	2.95	-----	-----	
	G	80.00	2.00	5.00	-----	-----	
*Deficient							
**Deficient compared with registered guarantee							

*Deficient

**Deficient compared with registered guarantee

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
MRS. ALICE TULE, Muncy, Pa.							
Lime Bluff Lump Lime (C-2311)	F	84.07	0.83	16.11	-----	-----	-----
	G	75.00	1.25	-----	-----	-----	-----
Lime Bluff Lump Lime (C-2439)	F	86.03	1.09	4.64	-----	-----	-----
	G	76.00	1.00	-----	-----	-----	-----
Lime Bluff Lump Lime (C-2487)	F	85.70	*1.47	2.98	-----	-----	-----
	G	76.00	2.00	-----	-----	-----	-----
TYRONE LIME & STONE CO., Tyrone, Pa.							
Agricultural Lump Lima (C-2451)	F	*88.18	*3.39	8.78	-----	-----	-----
	G	91.80	4.52	-----	-----	-----	-----
UNIVERSAL GYPSUM & LIME CO., York, Pa.							
Challenge Agricultural Lump Lime (C-2208)	F	89.24	*1.34	-----	-----	-----	-----
	G	88.00	8.00	-----	-----	-----	-----
WEST BRANCH LIME CO., Williamsport, Pe.							
Ground Lime (C-2432)	F	77.66	2.08	9.91	79.2	62.0	58.4
	G	76.00	2.00	3.00	95.0	70.0	50.0
Ground Lime (C-2483)	F	79.69	2.89	2.48	84.4	66.0	63.6
	G	78.00	2.00	3.00	95.0	70.0	50.0
Lump Lima (C-2283)	F	*71.29	2.36	-----	-----	-----	-----
	G	78.00	2.00	-----	-----	-----	-----
Lump Lima (C-2264)	F	86.02	1.75	-----	-----	-----	-----
	G	76.00	2.00	-----	-----	-----	-----
Lump Lima (C-2308)	F	86.98	*1.43	6.21	-----	-----	-----
	G	76.00	2.00	-----	-----	-----	-----
Lump Lime (C-2431)	F	77.78	2.03	2.50	-----	-----	-----
	G	76.00	2.00	-----	-----	-----	-----
Lump Lime (C-2484)	F	80.84	3.54	2.95	-----	-----	-----
	G	78.00	2.00	-----	-----	-----	-----
Average		79.92	2.26	-----	-----	-----	-----
HYDRATED LIME (Low Magnesia)							
H. S. ALTMAN, Irwin, Pa.							
Altman's Hydrated Lima (C-2219)	F	60.43	0.58	-----	-----	-----	-----
	G	60.00	0.80	-----	-----	-----	-----
Altman's Hydrated Lima (C-2256)	F	60.54	0.54	-----	-----	-----	-----
	G	60.00	0.80	-----	-----	-----	-----
Altman's Hydrated Lima (C-2293)	F	65.01	0.80	-----	-----	-----	-----
	G	60.00	0.80	-----	-----	-----	-----
Altman's Hydrated Lima (C-2295)	F	63.62	0.80	-----	-----	-----	-----
	G	60.00	0.80	-----	-----	-----	-----
Altman's Hydrated Lima (C-2373)	F	63.39	1.04	-----	95.2	86.0	81.2
	G	60.00	0.80	-----	-----	-----	-----
AMERICAN LIME & STONE CO., Bellefonte, Pa.							
Bald Eagle Hydrated Lime (C-2113)	F	72.18	1.02	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2119)	F	72.12	0.88	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2124)	F	72.12	0.83	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2132)	F	70.84	0.78	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2154)	F	70.11	0.75	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2173)	F	72.45	0.85	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2190)	F	69.24	0.75	-----	-----	-----	-----
	O	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2200)	F	72.63	0.76	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2218)	F	72.86	0.77	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2227)	F	71.96	0.54	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2230)	F	72.21	1.00	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2247)	F	73.58	1.01	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2274)	F	72.91	0.72	-----	-----	-----	-----
	G	69.00	1.00	-----	-----	-----	-----
Bald Eagle Hydrated Lima (C-2323)	F	72.98	0.84	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2331)	F	72.67	0.82	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2333)	F	73.07	0.83	-----	100.0	100.0	100.0
	G	69.00	1.00	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2344)	F	72.96	0.78	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2393)	F	72.05	1.00	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2406)	F	72.32	0.95	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2415)	F	72.01	1.08	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2417)	F	73.48	0.71	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2430)	F	71.56	0.72	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2466)	F	73.01	0.84	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2474)	F	72.50	0.99	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2477)	F	73.01	0.77	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
Bald Eagle Hydrated Lima (C-2505)	F	71.65	0.93	-----	100.0	100.0	100.0
	G	69.30	0.70	-----	100.0	99.0	99.0
*Deficient							

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
Bell Mine High Calcium Hydrated Lime (C-2402)	F	71.88	0.83	----	100.0	100.0	100.0
	G	69.30	0.70	----	-----	-----	-----
Bell Mine High Calcium Hydrated Lime (C-2414)	F	72.67	1.01	----	100.0	100.0	100.0
	G	69.30	0.70	----	100.0	99.9	99.9
Bell Mine High Calcium Hydrated Lime (C-2464)	F	73.22	0.70	----	100.0	100.0	100.0
	G	69.30	0.70	----	100.0	99.9	99.9
ANNVILLE LIME CO., Annaville, Pa. Snowflake Brand Hydrated Lime (C-2217)	F	*62.98	6.86	----	-----	-----	-----
	G	65.00	6.00	----	-----	-----	-----
Snowflake Brand Hydrated Lime (C-2324)	F	70.28	*2.17	----	100.0	98.8	98.0
	G	60.00	11.00	----	99.76	99.0	-----
Snowflake Brand Hydrated Lime (C-2494)	F	*62.00	9.07	----	100.0	98.4	97.6
	G	69.76	1.76	----	-----	-----	-----
J. E. BAKER CO., York, Pa. Susquehanna Hydrated Lime (C-2139)	F	70.00	3.30	----	-----	-----	-----
	G	65.00	3.00	----	-----	-----	-----
Susquehanna Hydrated Lime (C-2175)	F	64.67	10.14	----	-----	-----	-----
	G	65.00	3.00	----	-----	-----	-----
THE BAKER STONE CO., Bloomsburg, Pa. Baker Brand Hydrated Lime (C-2137)	F	*63.00	1.21	----	-----	-----	-----
	G	67.28	1.21	----	-----	-----	-----
Baker Brand Hydrated Lime (C-2265)	F	67.76	1.16	----	-----	-----	-----
	G	67.28	1.21	----	-----	-----	-----
Baker Brand Hydrated Lima (C-2321)	F	67.83	1.22	----	100.0	96.0	94.8
	G	67.28	1.21	----	-----	-----	-----
Baker Brand Hydrated Lime (C-2411)	F	67.49	1.35	----	100.0	96.8	96.4
	G	67.28	1.21	----	100.0	96.0	95.2
Baker Brand Hydrated Lime (C-2444)	F	68.00	1.23	----	100.0	96.8	94.8
	G	67.28	1.21	----	-----	-----	-----
Baker Brand Hydrated Lima (C-2471)	F	*66.54	1.65	----	100.0	96.0	94.0
	G	67.28	1.21	----	100.0	96.0	96.2
Baker Brand Hydrated Lima (C-2496)	F	*66.43	1.61	----	100.0	96.8	95.2
	G	67.28	1.21	----	100.0	96.0	95.2
BARRICK & SONS INC., Woodboro, Md. Barrick's Agricultural Hydrated Lime (C-2305)	F	63.36	*3.69	----	97.6	91.6	89.2
	G	60.00	5.00	----	99.0	96.0	80.0
ELAIR LIMESTONE CO., Martineburg, W.Va. Opequon Hydrated Lime (C-2162)	F	67.10	*1.37	----	-----	-----	-----
	G	67.00	2.00	----	-----	-----	-----
Opequon Hydrated Lime (C-2398)	F	*64.80	1.93	----	100.0	99.6	99.2
	G	67.00	2.00	----	-----	-----	-----
CHEMICAL LIME CO., Bellefonte, Pa. Chemical Agricultural Lime (C-2148)	F	72.80	0.84	----	-----	-----	-----
	G	64.00	1.00	----	-----	-----	-----
Chemical Agricultural Lime (C-2186)	F	73.20	0.72	----	-----	-----	-----
	G	64.00	1.00	----	-----	-----	-----
Chemical Agricultural Lime (C-2286)	F	72.24	0.81	----	-----	-----	-----
	G	64.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2120)	F	72.12	0.76	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2143)	F	72.74	0.76	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2179)	F	72.45	0.70	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2212)	F	73.54	0.68	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2267)	F	73.08	0.71	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2268)	F	72.69	0.64	----	-----	-----	-----
	G	69.00	1.00	----	-----	-----	-----
Clover Brand Agricultural Lime (C-2442)	F	72.84	0.84	----	100.0	100.0	100.0
	G	69.00	1.00	----	-----	-----	-----
COOPERATIVE G.L.F.MILLS, INC., Buffalo, N. Y. G.L.F. Quality Hydrated Agricultural Lime (C-2147)	F	*60.65	2.16	----	-----	-----	-----
	G	63.86	2.15	----	-----	-----	-----
G.L.F. Quality Hydrated Agricultural Lime (C-2357)	F	71.76	1.03	----	100.0	99.2	98.4
	G	70.00	0.75	----	100.0	95.0	90.0
G.L.F. Quality Hydrated Agricultural Lime (C-2496)	F	62.94	2.44	----	96.8	91.2	88.4
	G	58.00	1.00	----	80.0	80.0	-----
EVERETT-SAXTON CO., Everatt, Pa. Fort Badford Hydrated Lime (C-2153)	F	70.11	2.33	----	-----	-----	-----
	G	68.00	2.47	----	-----	-----	-----

*Deficient

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
M. J. GROVE LIME CO., Lime Kiln, Md.							
Famous Frederick County Hydrated Lime (C-2182)	F	73.09	*0.91	----	----	----	----
	G	65.00	5.00	----	----	----	----
Famous Frederick County Hydrated Lime (C-2320)	F	72.90	*0.56	----	100.0	100.0	99.2
	G	65.00	5.00	----	----	----	----
Famous Frederick County Hydrated Lime (C-2374)	F	73.19	*1.01	----	100.0	100.0	99.2
	G	65.00	5.00	----	----	----	----
WALTER HERSHBERGER, Kittanning, Pa.							
Hereberger Hydrate Lime (C-2427)	F	65.10	3.16	----	80.0	75.2	72.4
	G	61.43	2.33	----	69.6	58.0	56.8
H. H. & C. D. McCANNA, McGRANN, Pe.							
Hydrated Lime (C-2376)	F	66.42	0.46	----	92.8	89.6	88.0
	G	----	----	----	----	----	----
Hydrated Lima (C-2425)	F	66.40	0.71	----	94.0	88.8	88.0
	G	65.79	0.66	----	----	----	----
MERCER LIME & STONE CO., Marcer, Pa.							
Mercer Hydrated Lime (C-2140)	F	*60.26	0.65	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lime (C-2172)	F	*58.94	0.71	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lime (C-2185)	F	*58.74	1.18	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lime (C-2220)	F	60.66	0.58	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lima (C-2229)	F	63.20	0.63	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lima (C-2244)	F	60.56	7.92	----	----	----	----
	G	61.00	0.80	----	----	----	----
Marcer Hydrated Lima (C-2301)	F	62.21	0.91	----	----	----	----
	G	61.00	0.80	----	----	----	----
Mercer Hydrated Lima (C-2410)	F	64.37	0.82	----	93.6	87.6	85.6
	G	61.68	0.80	----	97.0	87.0	77.0
Mercer Hydrated Lima (C-2423)	F	61.76	0.83	----	92.0	84.0	80.4
	G	61.88	0.80	----	97.0	87.0	77.0
Mercer Hydrated Lima (C-2428)	F	67.20	0.80	----	91.2	83.2	81.6
	G	61.68	0.80	----	97.0	87.0	77.0
Marcer Hydrated Lima (C-2450)	F	67.13	0.82	----	91.6	82.4	59.6
	G	61.68	0.80	----	97.0	87.0	77.0
Mercer Hydrated Lima (C-2503)	F	62.44	0.64	----	98.4	91.6	89.6
	G	61.68	0.80	----	97.0	87.0	77.0
H. E. MILLARD, Annville, Pa.							
Over The Top Hydrated Lime (C-2390)	F	71.27	2.01	----	100.0	100.0	100.0
	G	71.00	1.00	----	100.0	99.75	----
Sweet Arrow Hydrated Lima (C-2216)	F	71.45	2.38	----	----	----	----
	G	70.00	1.50	----	----	----	----
Sweet Arrow Hydrated Lima (C-2242)	F	71.51	1.88	----	----	----	----
	G	70.00	1.60	----	----	----	----
Sweet Arrow Hydrated Lima (C-2269)	F	71.40	1.77	----	----	----	----
	G	70.00	1.75	----	----	----	----
Sweet Arrow Hydrated Lima (C-2280)	F	70.00	1.50	----	----	----	----
	G	70.00	1.50	----	----	----	----
Sweet Arrow Hydrated Lima (C-2392)	F	71.10	2.35	----	100.0	100.0	100.0
	G	70.00	1.50	----	100.0	99.25	99.0
Sweet Arrow Hydrated Lima (C-2401)	F	70.49	2.50	----	100.0	100.0	99.6
	G	70.00	1.50	----	100.0	99.25	99.0
Sweet Arrow Hydrated Lima (C-2446)	F	71.48	1.51	----	100.0	100.0	100.0
	G	70.00	1.50	----	100.0	99.25	99.0
Sweet Arrow Hydrated Lima (C-2508)	F	70.59	1.82	----	100.0	100.0	99.8
	G	70.00	1.50	----	100.0	99.25	99.0
MOHAWK LIMESTONE PRODUCTS CO., Mohawk, N. Y.							
Mohawk Lima Hydrate (C-2122)	F	*62.55	2.05	----	----	----	----
	G	63.85	2.15	----	----	----	----
Mohawk Lima Hydrate (C-2196)	F	*60.15	2.38	----	----	----	----
	G	63.85	2.15	----	----	----	----
Mohawk Lima Hydrate (C-2232)	F	*61.11	2.51	----	----	----	----
	G	65.85	2.15	----	----	----	----
THE NATIONAL LIMESTONE CO., Nagney, Pe.							
Clover Leaf Hydrated Lime (C-2180)	F	68.51	7.56	----	----	----	----
	G	65.00	3.00	----	----	----	----
Clover Leaf Hydrated Lima (C-2447)	F	69.56	4.02	----	100.0	100.0	100.0
	G	55.00	3.00	----	----	----	----
NEW ENTERPRISE STONE & LIME CO., New Enterprise, Pa.							
Port Bedford Hydrated Lima (C-2457)	F	70.18	3.31	----	100.0	100.0	100.0
	G	68.96	2.42	----	----	----	----
NORTH AMERICAN CEMENT CORPORATION, Baltimore, Md.							
Berkeley Hydra Calcite Lima (C-2152)	F	69.83	2.40	----	----	----	----
	G	60.00	2.00	----	----	----	----
THE PINE CREEK LIME & STONE CO., Jareey Shora, Pa.							
Imperial Hydrated Lime (C-2198)	F	65.52	2.98	----	----	----	----
	G	60.00	3.35	----	----	----	----
Imperial Hydrated Lime (C-2237)	F	61.26	2.97	----	----	----	----
	G	60.00	3.35	----	----	----	----
Imperial Hydrated Lima (C-2299)	F	68.07	3.43	----	----	----	----
	G	60.00	3.35	----	----	----	----
Imperial Hydrated Lima (C-2312)	F	65.27	*2.81	----	100.0	97.6	94.0
	G	60.00	3.35	----	100.0	99.99	99.98

*Deficient

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
Imperial Hydrated Lime (C-2339)	F	64.41	3.11	----	100.0	97.2	95.2
	O	60.00	3.35	----	-----	-----	-----
Imperial Hydrated Lime (C-2435)	F	67.76	3.58	----	100.0	95.6	92.8
	O	60.00	3.36	----	100.0	97.0	94.0
Imperial Hydrated Lime (C-2482)	F	64.64	3.58	----	100.0	97.6	95.6
	G	62.50	3.00	----	-----	-----	-----
Imperial Hydrated Lime (C-2491)	F	65.43	3.67	----	100.0	98.0	96.0
	G	62.50	3.00	----	-----	-----	-----
ROBERT A. REICHARD INC., Allentown, Pa.							
Reichard's Lehigh Hydrated Lime (C-2138)	F	71.06	1.69	----	-----	-----	-----
	O	68.00	0.50	----	-----	-----	-----
Reichard's Lehigh Hydrated Lime (C-2238)	F	71.12	1.46	----	-----	-----	-----
	G	68.00	0.50	----	-----	-----	-----
ROSE POINT STONE & LIME CO., New Castle, Pa.							
Peerless Hydrated Lime (C-2176)	F	59.46	1.33	----	-----	-----	-----
	G	56.00	1.50	----	-----	-----	-----
Peerless Hydrated Lime (C-2228)	F	61.17	1.08	----	-----	-----	-----
	G	55.00	1.50	----	-----	-----	-----
Peerless Hydrated Lime (C-2248)	F	58.07	1.50	----	-----	-----	-----
	G	55.00	1.50	----	-----	-----	-----
Peerless Hydrated Lime (C-2290)	F	62.83	1.50	----	-----	-----	-----
	G	65.00	1.50	----	-----	-----	-----
Peerless Hydrated Lime (C-2345)	F	63.33	1.51	----	86.8	78.4	75.6
	G	55.00	1.50	----	-----	-----	-----
Rose Point Hydrated Lime (C-2225)	F	60.65	1.13	----	-----	-----	-----
	G	56.00	1.50	----	-----	-----	-----
Rose Point Hydrated Lime (C-2502)	F	64.89	1.30	----	98.4	95.6	94.8
	G	62.00	1.50	----	96.0	89.0	87.0
STANDARD CHEMICAL WORKS, Reading, Pa.							
Standard Hytest Hydrated Lime (C-2136)	F	70.34	2.19	----	-----	-----	-----
	G	70.00	1.76	----	-----	-----	-----
Standard Hytest Hydrated Lime (C-2266)	F	71.18	1.48	----	-----	-----	-----
	G	70.00	1.75	----	-----	-----	-----
Standard Hytest Hydrated Lime (C-2298)	F	71.90	1.76	----	-----	-----	-----
	O	70.00	1.76	----	-----	-----	-----
Standard Hytest Hydrated Lime (C-2306)	F	71.69	*1.24	----	100.0	99.2	98.0
	G	70.00	1.75	----	-----	-----	-----
Standard Hytest Hydrated Lime (C-2459)	F	70.02	1.96	----	100.0	100.0	100.0
	G	70.00	1.59	----	-----	-----	-----
STEACY & WILTON CO., Wrightsville, Pa.							
Sterling Hydrated Lime (C-2131)	F	70.90	*1.82	----	-----	-----	-----
	G	67.00	5.00	----	-----	-----	-----
Sterling Hydrated Lime (C-2163)	F	72.34	*2.23	----	-----	-----	-----
	G	67.00	5.00	----	-----	-----	-----
Sterling Hydrated Lime (C-2213)	F	73.20	*2.26	----	-----	-----	-----
	G	67.00	5.00	----	-----	-----	-----
Sterling Hydrated Lime (C-2304)	F	71.87	*2.59	----	100.0	100.0	98.8
	G	67.00	5.00	----	-----	-----	-----
Sterling Hydrated Lime (C-2394)	F	71.77	*2.53	----	100.0	99.6	99.2
	G	67.00	5.00	----	-----	-----	-----
Sterling Hydrated Lime (C-2445)	F	70.92	5.03	----	100.0	100.0	100.0
	G	67.00	5.00	----	-----	-----	-----
UNITED STATES GYPSUM CO., Chicago, Ill.							
USG Agricultural Hydrate Lime (C-2158)	F	72.07	0.67	----	-----	-----	-----
	G	70.75	0-2	----	-----	-----	-----
UNIVERSAL GYPSUM & LIME CO., Chicago, Ill.							
Palmer Hydrated Lime (C-2150)	F	70.06	*1.35	----	-----	-----	-----
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2164)	F	71.83	*1.82	----	-----	-----	-----
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2174)	F	72.46	*1.19	----	-----	-----	-----
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2210)	F	72.29	*1.14	----	-----	-----	-----
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2214)	F	71.96	*1.97	----	-----	-----	-----
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2303)	F	72.06	*1.26	----	100.0	98.4	96.4
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2317)	F	71.70	*1.52	----	100.0	99.2	96.0
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2363)	F	71.57	*1.40	----	100.0	100.0	96.4
	G	68.00	2.50	----	-----	-----	-----
Palmer Hydrated Lime (C-2368)	F	72.24	1.55	----	100.0	100.0	98.0
	G	70.00	2.00	----	100.0	98.0	97.0
Palmer Hydrated Lime (C-2467)	F	73.01	1.30	----	100.0	100.0	100.0
	G	73.00	1.00	----	-----	-----	-----
Palmer Hydrated Lime (C-2498)	F	*68.57	*1.50	----	100.0	99.6	97.6
	G	70.00	2.00	----	100.0	98.0	97.0

*Deficient

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
					%	%	%
WASHINGTON BUILDING LIME CO., Baltimore, Md.							
Weshington Chemical Hydrated Lime	F	72.86	1.13	----	-----	-----	
(C-2259)	G	71.00	1.00	----	-----	-----	
Weshington Chemical Hydrated Lime	F	73.80	1.07	----	100.0	100.0	
(C-2469)	G	71.00	1.00	----	100.0	95.0	
WEST BRANCH LIME CO., Williamsport, Pe.							
Clover Leaf Hydrated Lime (C-2262)	F	**63.23	1.74	----	-----	-----	
	G	-----	-----	----	-----	-----	
Clover Leaf Hydrated Lime (C-2307)	F	63.06	3.03	----	95.8	89.6	
	G	63.00	1.90	----	99.0	95.0	
Clover Leaf Hydrated Lime (C-2433)	F	65.10	2.04	----	98.0	94.4	
	G	63.00	1.90	----	99.0	95.0	
WHITEHOCK QUARRIES INC., Sellefonte, Pe.							
Whiterock Nittany H-O Hydrated Lime	F	71.12	0.82	----	-----	-----	
(C-2116)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.68	0.77	----	-----	-----	
(C-2134)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	70.11	0.80	----	-----	-----	
(C-2142)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	*68.91	0.87	----	-----	-----	
(C-2181)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	*69.02	0.72	----	-----	-----	
(C-2221)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.28	0.72	----	-----	-----	
(C-2224)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	69.73	0.75	----	-----	-----	
(C-2226)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.12	0.59	----	-----	-----	
(C-2250)	O	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.34	0.55	----	-----	-----	
(C-2279)	O	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	70.00	0.59	----	-----	-----	
(C-2286)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.82	0.81	----	100.0	98.8	
(C-2315)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	70.17	0.83	----	100.0	99.2	
(C-2316)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.43	0.83	----	100.0	99.2	
(C-2391)	G	70.00	0.55	----	100.0	99.0	
Whiterock Nittany H-O Hydrated Lime	F	69.59	0.86	----	100.0	96.4	
(C-2404)	O	70.00	0.55	----	100.0	99.0	
Whiterock Nittany H-O Hydrated Lime	F	71.06	0.62	----	100.0	99.2	
(C-2409)	G	70.00	0.55	----	100.0	99.0	
Whiterock Nittany H-O Hydrated Lime	F	72.46	0.62	----	100.0	100.0	
(C-2420)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.78	0.59	----	100.0	100.0	
(C-2429)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.48	0.64	----	100.0	98.4	
(C-2449)	G	70.00	0.55	----	-----	-----	
Whiterock Nittany H-O Hydrated Lime	F	71.32	0.57	----	100.0	100.0	
(C-2470)	G	70.00	0.55	----	100.0	99.0	
Whiterock Nittany H-O Hydrated Lime	F	70.37	1.08	----	100.0	100.0	
(C-2473)	G	70.00	0.55	----	100.0	99.0	
Whiterock Sprey Hydrated Lime	F	72.80	0.75	----	-----	-----	
(C-2145)	G	73.21	0.61	----	-----	-----	
Whiterock Spray Hydrated Lime	F	*72.39	0.87	----	100.0	100.0	
(C-2501)	G	73.21	0.61	----	-----	-----	
Average		68.88	1.60	----	----	-----	
HYDRATED LIME (High Magnesia)							
ANNVILLE LIME CO., Annaville, Pe.							
Snowflake Hydrated Lime (C-2157)	F	*54.43	17.57	----	-----	-----	
	G	65.00	6.00	----	-----	-----	
Snowflake Hydrated Lime (C-2161)	F	*56.17	16.09	----	-----	-----	
	G	65.00	6.00	----	-----	-----	
Snowflake Hydrated Lime (C-2184)	F	*57.89	14.50	----	-----	-----	
	G	65.00	6.00	----	-----	-----	
*Deficient							
**Deficient compared with registered guarantee							

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
		%	%	%	%	%	%
Snowflake Hydrated Lime (C-2211)	F	*55.35	19.01	----	----	----	----
	G	65.00	6.00	----	----	----	----
Snowflake Hydrated Lime (C-2240)	F	*57.29	17.53	----	----	----	----
	G	65.00	6.00	----	----	----	----
BASIC DOLOMITE INC., Cleveland, Ohio							
Senece Agricultural Lime (C-2168)	F	48.49	32.65	----	----	----	----
	G	34.23	20.72	----	----	----	----
CHESTER VALLEY LIME & PRODUCTS CO., West Chester, Pa.							
Chester Valley Hydrated Lime (C-2146)	F	48.83	31.38	----	----	----	----
	G	46.50	31.00	----	----	----	----
Chester Valley Hydrated Lime (C-2270)	F	47.71	31.59	----	----	----	----
	G	46.50	31.00	----	----	----	----
Chester Valley Hydrated Lime (C-2328)	F	47.03	*28.29	----	100.0	98.4	95.6
	G	46.50	31.00	----	----	----	98.0
Chester Valley Hydrated Lime (C-2367)	F	47.21	31.02	----	97.6	94.0	91.8
	G	46.50	31.00	----	----	----	98.0
G. & W. H. CORSON INC., Plymouth Meeting, Pa.							
Corson's Hydrated Lime (C-2341)	F	48.22	31.88	----	100.0	96.4	95.6
	G	46.50	31.00	----	----	----	----
FRANCE LIME PRODUCTS INC., Gibsonburg, Ohio							
France Agricultural Hydrated Lime (C-2165)	F	47.41	32.91	----	----	----	----
	G	47.20	32.90	----	----	----	----
France Agricultural Hydrated Lime (C-2236)	F	48.22	33.39	----	----	----	----
	G	47.20	32.90	----	----	----	----
France Agricultural Hydrated Lime (C-2262)	F	48.66	33.22	----	----	----	----
	G	47.20	32.90	----	----	----	----
France Agricultural Hydrated Lime (C-2288)	F	47.26	32.91	----	----	----	----
	G	47.20	32.90	----	----	----	----
France Agricultural Spraying Hydrated Lime (C-2289)	F	**47.82	32.49	----	----	----	----
	G	-----	-----	----	----	----	----
THE KELLEY ISLAND LIME & TRANSPORT CO., Cleveland, Ohio							
Tiger Agricultural Hydrated Lime White Hock (C-2166)	F	48.83	*32.84	----	----	----	----
	G	47.12	34.12	----	----	----	----
NATIONAL GYPSUM CO., Buffalo, N.Y.							
Cold Bond Agricultural Hydrated Lime (C-2426)	F	48.46	32.92	----	100.0	100.0	99.6
	G	42.80	32.70	----	100.0	99.0	85.0
Lucky Hydrated Lime (C-2222)	F	48.79	33.14	----	----	----	----
	G	42.80	32.70	----	----	----	----
THE NATIONAL LIME & STONE CO., Findley, Ohio							
Monarch Hydrated Agricultural Lime (C-2115)	F	48.60	*32.39	----	----	----	----
	G	48.00	33.50	----	----	----	----
Monarch Hydrated Agricultural Lime (C-2253)	F	49.50	33.47	----	----	----	----
	G	48.00	33.50	----	----	----	----
NATIONAL MORTAR & SUPPLY CO., Pittsburgh, Pa.							
Banner Agricultural Lime-Hydrated (C-2235)	F	49.00	33.77	----	----	----	----
	G	48.00	33.00	----	----	----	----
Banner Agricultural Lime-Hydrated (C-2336)	F	48.96	33.41	----	100.0	99.2	95.2
	G	48.00	33.00	----	----	----	----
Banner Agricultural Lime-Hydrated (C-2356)	F	49.13	*32.38	----	100.0	99.6	97.6
	G	48.00	33.00	----	100.0	99.3	98.9
Banner Agricultural Lime-Hydrated (C-2371)	F	48.78	33.03	----	100.0	99.6	97.2
	G	48.00	33.00	----	100.0	99.3	98.9
Banner Agricultural Lime-Hydrated (C-2443)	F	48.28	33.02	----	100.0	99.2	96.8
	G	48.00	33.00	----	----	----	----
Banner Agricultural Lime-Hydrated (C-2479)	F	*47.23	*31.94	----	100.0	99.6	98.4
	G	48.00	33.00	----	----	----	----
Crop Lime (C-2169)	F	44.74	30.53	----	----	----	----
	G	40.60	27.40	----	----	----	----
Crop Lime (C-2302)	F	48.38	32.97	----	----	----	----
	G	40.60	27.40	----	----	----	----
THE OHIO HYDRATE & SUPPLY CO., Woodville, Ohio							
Ohio Hydrate Agricultural Lime (C-2118)	F	49.39	32.37	----	----	----	----
	G	48.00	31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2151)	F	49.39	31.73	----	----	----	----
	G	48.00	31.70	----	----	----	----

*Efficient compared with registered
 **Efficient compared with registered

TABLE III--LIME, HYDRATED LIME AND MISCELLANEOUS

MANUFACTURER AND BRAND NAME		CALCIUM OXIDE	MAGNESIUM OXIDE	OXIDES AS CARBONATES	FINENESS		
					#20	#60	#100
					%	%	%
Ohio Hydrate Agricultural Lime (C-2187)	F O	49.86 48.00	33.21 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2201)	F O	48.87 48.00	32.44 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2245)	F G	49.62 48.00	33.20 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2254)	F O	49.39 48.00	33.12 31.00	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2278)	F O	48.83 48.00	33.12 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2292)	F G	49.17 48.00	32.50 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2300)	F O	49.39 48.00	32.02 31.70	----	----	----	----
Ohio Hydrate Agricultural Lime (C-2318)	F O	49.30 48.00	33.07 31.70	----	100.0	99.2	97.6
Ohio Hydrate Agricultural Lime (C-2463)	F G	48.15 48.00	32.59 31.70	----	100.0	99.6	99.2
UNITED STATES OYPSUM CO., Cenosa, Ohio							
U.S.O. Agricultural Hydrated Lime (C-2276)	F O	47.04 47.00	30.50 30.00	----	----	----	----
U.S.G. Agricultural Hydrated Lime (C-2358)	F O	49.30 47.00	31.38 30.00	----	100.0 100.0	98.4 95.0	95.6 75.0
U.S.O. Agricultural Hydrated Lime (C-2398)	F G	47.20 47.00	31.15 30.00	----	100.0 100.0	99.2 95.0	97.6 75.0
WARNER COMPANY, Philadelphia, Pa.							
Warner Limoid (C-2125)	F G	48.10 46.50	32.43 31.00	----	----	----	----
Warner Limoid (C-2241)	F O	*42.84 46.50	*29.39 31.00	----	----	----	----
Warner Limoid (C-2275)	F G	40.22 46.50	32.71 31.00	----	----	----	----
Warner Limoid (C-2342)	F G	49.30 46.50	31.17 31.00	----	100.0	99.2	97.5
Warner Limoid (C-2366)	F G	48.83 46.50	33.63 31.00	----	100.0	99.2	98.0
THE WOODVILLE LIME PRODUCTS CO., Toledo, Ohio							
Blueboy Klover Krop Agricultural Lime (C-2207)	F O	48.23 47.09	31.42 31.37	----	----	----	----
Blueboy Klover Krop Agricultural Lime (C-2255)	F G	47.43 47.09	31.74 31.37	----	----	----	----
Blueboy Klover Krop Agricultural Lime (C-2282)	F G	48.38 47.09	31.51 31.37	----	----	----	----
Blueboy Klover Krop Agricultural Lime (C-2291)	F G	48.38 47.09	32.27 31.37	----	----	----	----
Blueboy Klover Krop Agricultural Lime (C-2329)	F G	*46.37 47.09	31.42 31.37	----	100.0	98.8	96.3
Blueboy Klover Krop Agricultural Lime (C-2360)	F G	49.64 47.09	31.49 31.37	----	100.0	99.6	97.6
Blueboy Klover Krop Agricultural Lime (C-2383)	F G	49.45 47.09	33.73 31.37	----	100.0	99.6	97.6
Blueboy Klover Krop Agricultural Lime (C-2506)	F O	54.51 46.87	*21.55 33.93	----	91.6 100.0	62.0 98.0	53.2 92.2
WM. ZINGER, Philadelphia, Pa.							
Zinger's Prepared High Grade Lime (C-2261)	F G	48.79 48.00	33.54 31.70	----	----	----	----
Average		49.12	30.75	----	----	----	----
MISCELLANEOUS							
WOODVILLE LIME PRODUCTS CO., Woodville, Ohio							
4 All Farm Lime Processed Limestone (C-2413)	F G	41.23 35.67	27.26 27.23	----	96.0 98.0	61.6 ----	51.2 70.0
4 All Farm Lime Processed Limestone (C-2296)	F G	41.66 35.67	27.30 27.23	----	----	----	----
Average		41.45	27.53	----	----	----	----

* Deficient

